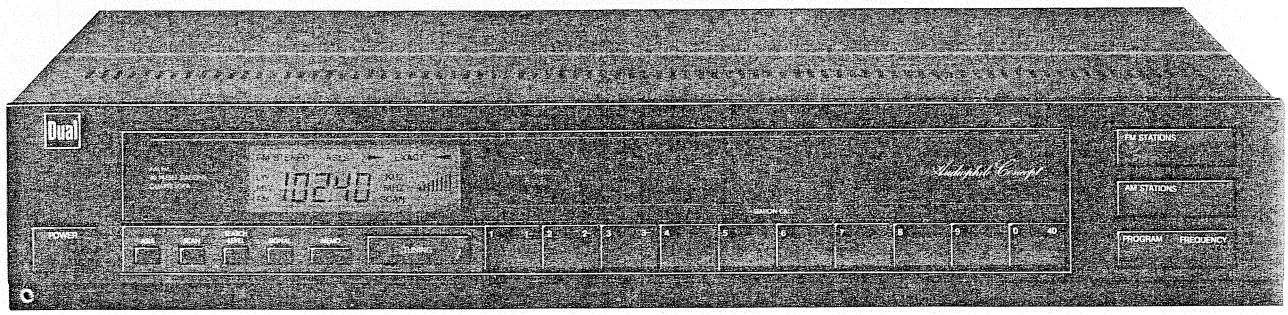
Service-Anleitung
Service Manual
Instructions de Service

CT 5040



Technische Daten (typische Werte)	Technical data (typical value)	Caractéristiques techniques (valeur caractéristique)	CT 5040
Empfangsbereiche FM (UKW) MW LW	**Wave bands** FM (VHF) MW LW	**Gammes d'ondes** FM (O.U.C.) P.O. G.O.	 87,5– 108 MHz 520 –1619 kHz 150 – 283 kHz
Empfindlichkeit FM-Mono (75 Ohm, 26 dB Rauschabstand) FM-Stereo (75 Ohm, 46 dB Rauschabstand)	**Sensitivity** FM-Mono (75 Ohm, signal-to-noise ratio 26 dB) FM-Stereo (75 Ohm, signal-to-noise ratio 46 dB)	**Sensibilité** FM-mono (75 ohms, rapport signal/bruit de 26 dB) FM-stéréo (75 ohms, rapport signal/bruit de 46 dB)	 0,8 μV 30 μV
Geräuschspannungsabstand (IHF) Stereo (1 kHz/46 kHz Hub)	**Signal-to-noise ratio, weighted (IHF)** Stereo (1 kHz/46 kHz)	**Rapport signal/bruit (IHF)** Stéréo (1 kHz/46 kHz)	 70 dB
Klirrfaktor Stereo (1 kHz/46 kHz Hub)	**Harmonic distortion** Stereo (1 kHz/46 kHz)	**Taux de distorsion** Stéréo (1 kHz/46 kHz)	 0,20%
Übersprechdämpfung bei 1 kHz	**Channel separation** at 1,000 Hz	**Diaphonie stéréo** (à 1 kHz)	45 dB
NF-Frequenzgang für Preemphasis 50 μs–3 dB	**AF frequency response** for 50 μs pre-emphasis – 3 dB	**Bande passante BF** pour pré-emphasis 50 μs à 3 dB	 10 Hz–16 kHz
Trennschärfe	**Selectivity**	**Séléctivité**	70 dB
NF-Ausgangsspannung	**AF output level**	**Tension de sortie BF**	ca. 500 mV
Netzspannung	**Line voltage**	**Tension secteur**	Model Europe 230 V Model USA/Canada 120V
Leistungsaufnahme	**Power requirement**	**Consommation**	15 Watt

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921 573 0189

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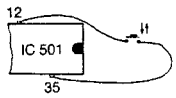
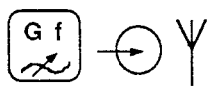
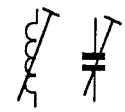
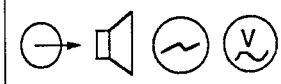
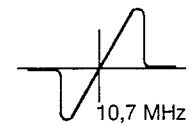
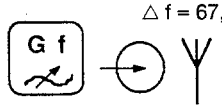
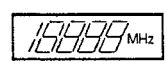
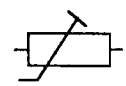
	Ⓓ Zeichenerklärung	ⒼⒷ Legend	Ⓕ Légende	Ⓔ Leyenda	Ⓘ Leggènda
	Ein	On	Marche	Encendido	Acceso
	Aus	Off	Arrêt	Apagado	Spento
	Ein-Aus	On-Off	Marche-Arrêt	Encendido-Apagado	Acceso-Spento
	Bereitschaft	Stand-by	Attente (veille)	Espera	Disponible
	Lautstärke	Volume	Volume	Volumen	Volumen
	Balance	Balance	Balance	Balance	Balance
	Höhen	Treble	Aiguës	Agudos	Alti
	Bässe	Bass	Graves	Graves	Bassi
	Lautsprecher	Loudspeaker	Haut-Parleur	Altavoz	Alto parlante
	Kopfhörer	Headphones	Casque	Auriculares	Cuffia
	Hörkapsel	Earphones	Ecouteur	Auricular	Cuffia
	Stummschaltung	Muting	Silencieux	Circuito silencioso	Sintonia Silenziosa
	Abstimmen	Tuning	Syntonisation	Sintonía	Sintonia
	Empfangsfrequenz-Regelung	Automatic frequency control	Contrôle automatique de fréquence	Control automático de frequencia	Controllo automatico delle frequenza
	Normal-Lauf	Normal-run	Défilement normal	Velocidad normal	Sfilamento normale
	Schnell-Lauf	Fast-run	Défilement rapide	Velocidad rapida	Sfilamento rapido
	Pause	Pause	Pause	Pausa	Pause
	Auswurf	Eject	Ejection	Expulsión	Eiezione
	Stop	Stop	Stop	Stop	Stop
	Stop / Eject	Stop / Eject	Stop / Eject	Stop / Eject	Stop / Eject
	Microphon	Microphone	Microphone	Micrófono	Microfono
	Tonbandgerät	Tape recorder	Magnétophone	Magnetófono	Magnetofono
	Aufnahme	Recording	Enregistrement	Grabación	Registrazione
	Wiedergabe	Play-back	Lecture	Reproducción	Riproduzione
	Antenne	Aerial	Antenne	Antena	Antenne
	Dipole	Dipole	Dipôle	Dipole	Dipole
	Tuner	Tuner	Radio-récepteur	Sintonizador	Tuner
	Plattenspieler	Pick-up	Lecteur de disques	Giradiscos	Giradischi
	Mono	Mono	Mono	Mono	Mono
	Stereo	Stereo	Stereo	Estereo	Stereo
	Uhr, Timer	Clock, Timer	Horloge, minuterie	Reloj, Timer	Orologio, Timer
	Output	Output	Sortie d'un signal	Salida de señales	Uscita di segnale
	Input	Input	Entrée d'un signal	Entrada de señales	Ingresso di segnale
	Trimmer	Trimmer	Trimmer	Trimmer	Trimmer
	Einstellregler	Adjuster	Potentiomètre ajustable	Potenciometro ajustable	Trimmer ohmico
	Abgleichbarer Kreis	Circuit can be aligned	Circuit à aligner	Circuito ajustable	Circuito a alineare
	L.E.D.	L.E.D.	L.E.D.	L.E.D.	L.E.D.
	Photodiode	Photodiode	Photodiode	Fotodiodo	Photodiodo
	Messpunkt	Test point	Point test	Punto de prueba	Punto di riferimento

Abgleich / Alignment / Reglages

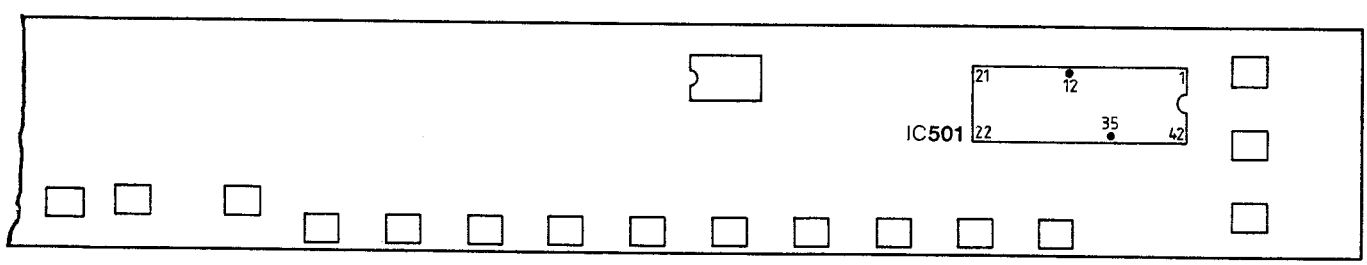
µP nach FM- und AM-Filter justieren (nur bei gelöschtem IC 501) · Adjust µP to FM- and AM filter (only with erased IC 501)						
	1	 (kurzschließen 1 s) · Short circuit longer then 1 s				
	2	FM-Taste drücken Press FM key	z. B. Keramikfilter „rot" e.g. Ceramic filter „red"	10,70 MHz	⟨ man. tuning ⟩ − +	
	3	AM-Taste drücken Press AM key		455 kHz		
	4	Netzschalter aus/ein Power switch off/on				
FM						
		△ f = 75 kHz f = 1 kHz 	f			
ZF	1	Ve ~ 1 mV	z. B. Keramikfilter „rot" e.g. Ceramic filter „red" 10,70 MHz	Senderfreie Frequenz Transmitting-free frequency z. B. 98 MHz	T 101, T 102, T 103	TP 7 
IF	2	Antenne an 75 Ohm Antenneneingang Antenna to 75 ohms antenna input		Starken FM-Sender auf seiner Sollfrequenz empfangen tune noise free station to nom. transmitting frequency	T 103	Tuning ± 10 kHz Display muß noch „EXACT" anzeigen Display has to indicate "EXACT"
FM	3			87,5 MHz	L 4	TP 5 V = 4 V ± 0,1 V
	4			108 MHz	TC 4	TP 5 V = 23,5 V
	5	Ve ~ 1,5 µV	90 MHz	90 MHz	L1-L2-L3	max.
	6		106 MHz	106 MHz	TC 1-TC 2-TC 3	
Decoder						
		△ f = 67,5 kHz f = 1 kHz 	f			
	1	modul. off	98 MHz	98 MHz	VR 301	TP 3 F = 19 kHz
	2	r. channel modul.	98 MHz	98 MHz	VR 302	l. ch. minimum
	3	l. channel modul.	98 MHz	98 MHz	VR 302	r. ch. minimum
	4	Ve ≃ 1 mV 19 kHz Pilot ohne Mod. 19 kHz Pilot without mod.	98 MHz	98 MHz	LPF 1	r. ch. minimum
					LPF 2	l. ch. minimum

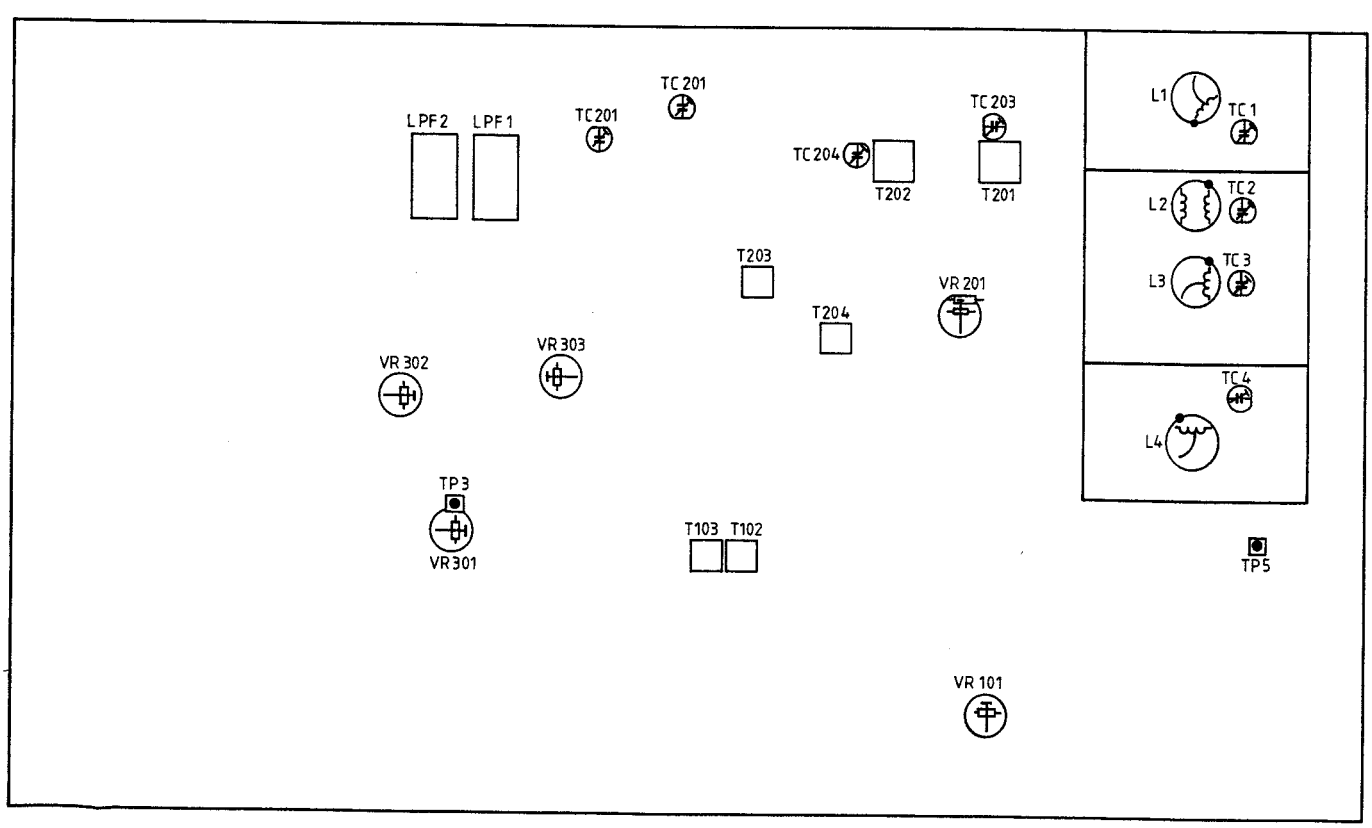
AM

		30 % mod. 1000 Hz (G f)	f	kHz		V
ZF IF	1	10 – 100 mV	455 kHz		IFT 203	max.
	2	455 kHz			IFT 204	
MW	3			520 kHz	T 201	V = 1,3 V — TP 5
	4			1619 kHz	TC 203	V = 23,5 V
	5	Ve ~ 400 µV/m	600 kHz	600 kHz	(Ferrit Ant.) (Bar Ant.)	max.
	6		1400 kHz	1400 kHz	TC 201	
LW	7			150 kHz	T 202	V = 2,4 V — TP 5
	8			283 kHz	TC 204	V = 12, 5 V
	9	Ve ~ 500 µV/m	160 kHz	160 kHz	(Ferrit Ant.) (Bar Ant.)	max.
	10		250 kHz	250 kHz	TC 202	

Mute level tune indicator

		G f	f	MHz		MHz	SIGNAL
AM	1	Ve = 500 µV/m	1000 KHz	1000 KHz	VR 201	DISPLAY 74 dB	
FM	2	Ve = 100 mV	98 MHz	98 MHz	VR 101	DISPLAY 40 dB	



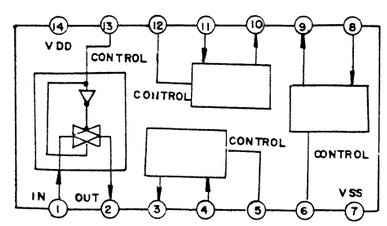


IC 101

	FM	AM
1	2,3	1,7
2	0	0
3	2,3	1,7
4	0	0
5	0	0
6	5,4	6,1
7	5,2	5,7
8	5,6	5,7
9	5,6	5,7
10	5,7	5,7
11	11,9	12,3
12	1,9	4,9
13	3,9	0,2
14	0	0
15	0	8,4
16	5,7	0

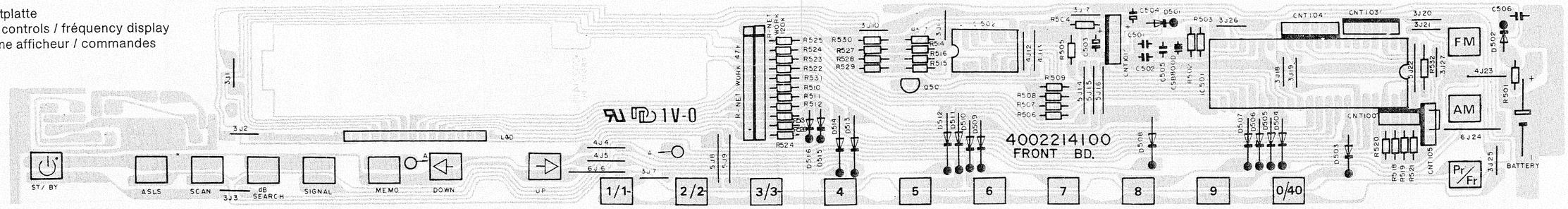
Keramikfilter	Frequenz
Black	10,64 MHz
Blue	10,67 MHz
Red	10,70 MHz
Orange	10,73 MHz
White	10,76 MHz

MC 14016 B

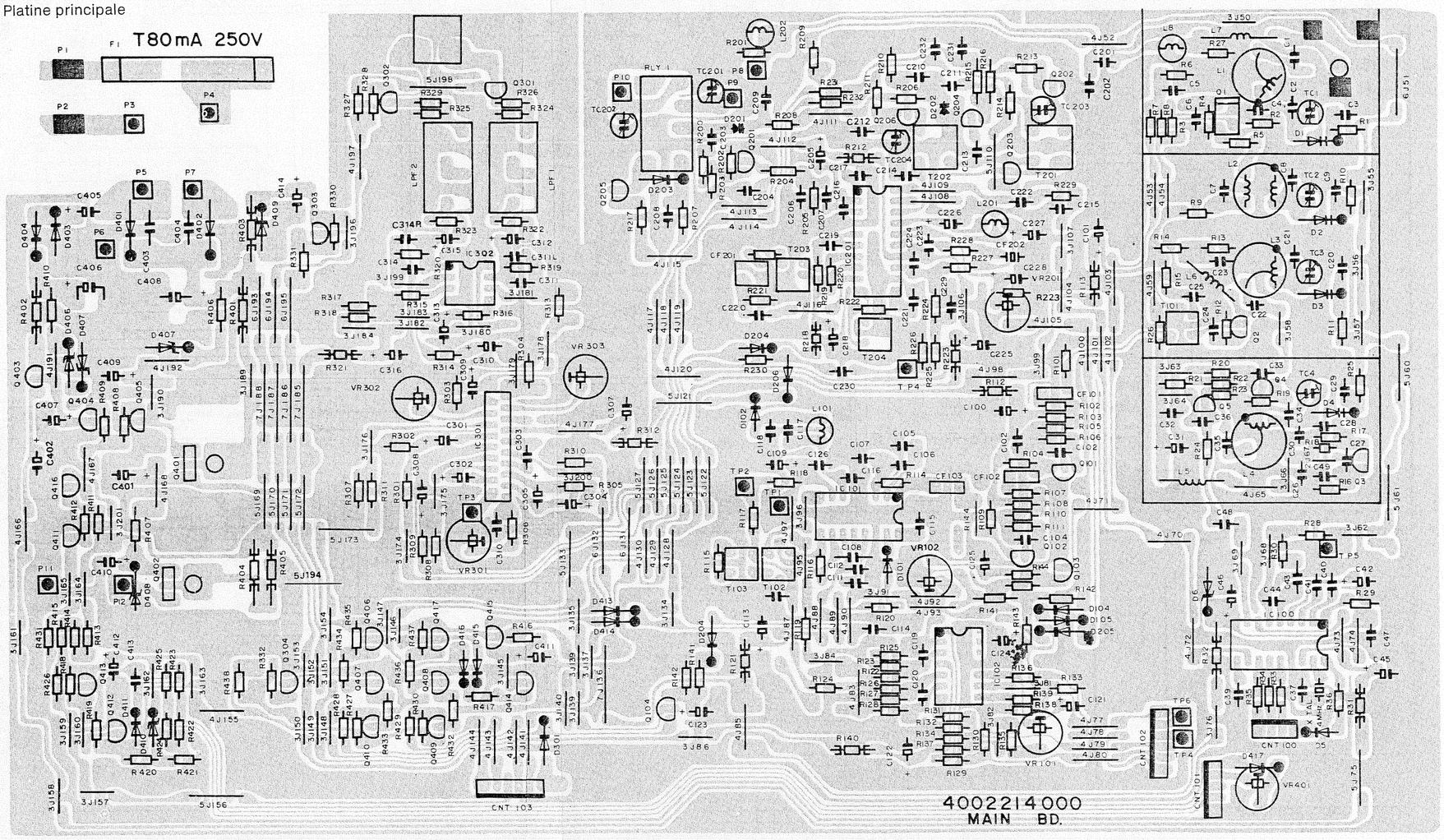


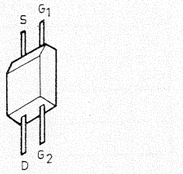
7,2 (V) 10 MΩ

Frontplatte
PCB controls / fréquency display
Platine afficheur / commandes



Grundplatte
Main board
Platine principale

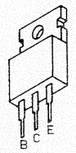



3SK 73 GR

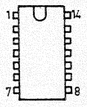
KTK 161
2SK 192

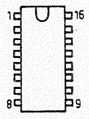
KTA 1015
KTC 1815
KTC 1923

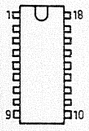
MPSA 05
LM 9018 F

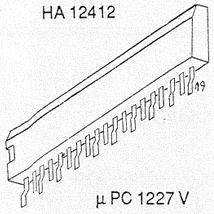

KTD 880 Y

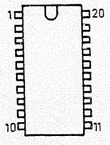
NJM 4560 D


LM 324


HA 12412


SAA 1057


µ PC 1227 V


LA 1245

Bestückungsseite
Component side
Côté composants

Ersatzteile · Replacement parts · Pièces détachées · CT 5040

Pos.	Art.-Nr.	Stck	Bezeichnung
1	283030	1	Gehäuseblech
2	283038	1	Frontblende
3	282333	1	Seitenteil R
4	282334	1	Seitenteil L
5	283031	1	Blendenträger
6	282336	1	Fenster
7	283040	1	Druckknopf power
8	282109	1	Druckfeder
9	282337	1	Taste ASLS – Memory
10	283041	1	Taste Man. Tuning / Auto Scan
11	283033	1	Taste Station 1–5
11	283034	1	Taste Station 6–0
13	283035	1	Taste FM Stations
14	283036	1	Taste AM Stations
15	283037	1	Taste Program Frequency
16	283032	1	Display
20	282344	2	Lampe
23	282345	1	Taster Power
24	282127	20	Taster
27	282346	1	Antennenbuchse
28	282347	1	Cinchbuchse 1-fach
42	282120	4	Fuß
43	282121	4	Fußdämpfer
46	243750	1	Netzkabel Europa
48	282349	1	Antennenhalter
49	283039	1	MW / LW Antenne
51	282135	4	Schraube 14×8
55	282523	12	Schraube 3×8
62	282216	1	Transformator
63		1	**Grundplatte**
64		1	**Frontplatte**
65		1	**Lampenplatte**
D 1	275858	4	Diode 1 SV 68
D 4	275858	4	Diode 1 SV 68
D 6	282062	1	Diode DZ 9,1 BM
D 101	223906	17	Diode 1 N 4148
D 102	223906	17	Diode 1 N 4148
D 104	223906	17	Diode 1 N 4148
D 105	223906	17	Diode 1 N 4148
D 106	223906	17	Diode 1 N 4148
D 201	268704	2	Diode KV 1226
D 202	268704	2	Diode KV 1226
D 203	223906	17	Diode 1 N 4148
D 206	223906	17	Diode 1 N 4148
D 301	223906	17	Diode 1 N 4148
D 400	223906	17	Diode 1 N 4148
D 401	226501	4	Diode 1 N 4002
D 404	226501	4	Diode 1 N 4002
D 405	282173	3	Diode DZ 15 B
D 406	282173	3	Diode DZ 15 B
D 407	282173	3	Diode DZ 15 B
D 409	282063	1	Diode DZ 12 BM
D 410	282174	1	Diode DZ 5,1 BM
D 411	223906	17	Diode 1 N 4148
D 413	223906	17	Diode 1 N 4148
D 417	223906	17	Diode 1 N 4148
D 501	223906	16	Diode 1 N 4148
D 516	223906	16	Diode 1 N 4148
L 1	282179	1	Spule
L 2	282180	1	Spule
L 3	282181	1	Spule
L 4	282182	1	Spule
L 5	282191	3	Spule 2,2 UH
L 6	282191	3	Spule 2,2 UH
L 7	282191	3	Spule 2,2 UH
L 8	282192	1	Spule 47 UH
L 101	282194	1	Spule 20,8 UH
L 201	282193	1	Spule 7,8 UH
L 202	282195	1	Spule 2,2 MH
L 9999	282206	1	Quarz CS B 800 D
Q 1	282168	1	Transistor 3 SK 73 GR
Q 2	282171	2	Transistor KTC 1923 Y
Q 3	282171	2	Transistor KTC 1923 Y

Pos.	Art.-Nr.	Stck	Bezeichnung
Q 4	282169	2	Transistor KTK 161 Y
Q 5	282169	2	Transistor KTK 161 Y
Q 101	282172	2	Transistor LM 9018 F
Q 102	282172	2	Transistor LM 9018 F
Q 103	282076	18	Transistor KTC 1815 Y
Q 104	282076	18	Transistor KTC 1815 Y
Q 201	282170	1	Transistor 2 SK 192 GR
Q 202	282076	18	Transistor KTC 1815 Y
Q 206	282076	18	Transistor KTC 1815 Y
Q 301	282076	18	Transistor KTC 1815 Y
Q 302	282076	18	Transistor KTC 1815 Y
Q 303	282077	7	Transistor KTA 1015 Y
Q 304	282076	18	Transistor KTC 1815 Y
Q 401	282057	2	Transistor KTD 880 Y
Q 402	282057	2	Transistor KTD 880 Y
Q 403	282059	1	Transistor MPS A05
Q 404	282076	18	Transistor KTC 1815 Y
Q 405	282076	18	Transistor KTC 1815 Y
Q 406	282077	7	Transistor KTA 1015 Y
Q 407	282076	18	Transistor KTC 1815 Y
Q 409	282077	7	Transistor KTA 1015 Y
Q 410	282077	7	Transistor KTA 1015 Y
Q 411	282076	18	Transistor KTC 1815 Y
Q 412	282076	18	Transistor KTC 1815 Y
Q 413	282077	7	Transistor KTA 1015 Y
Q 414	282076	18	Transistor KTC 1815 Y
Q 415	282076	18	Transistor KTC 1815 Y
Q 416	282077	7	Transistor KTA 1015 Y
Q 417	282077	7	Transistor KTA 1015 Y
Q 428	282076	18	Transistor KTC 1815 Y
Q 501	282076	1	Transistor KTC 1815 Y
R 1	282214	1	Netzwerk 11×473 G
R 2	282213	1	Netzwerk 11×124 G
T 101	282393	1	Spule
T 102	282183	1	Spule
T 103	282184	1	Spule
T 201	282186	1	Spule
T 202	282187	1	Spule
T 203	282189	1	Spule
T 204	282188	1	Spule
BA 1	282207	1	Akku CR 2439-8
CF 101	282196	3	Keramikfilter SFZ 10,7 M2
CF 102	282196	3	Keramikfilter SFZ 10,7 M2
CF 103	282196	3	Keramikfilter SFZ 10,7 M2
CF 201	282198	1	Keramikfilter SFP 455
CF 202	282197	1	Keramikfilter BFU 455
CR 1	282175	1	Quarz 4 MHz
IC 100	274730	1	IC SAA 1057
IC 101	268204	1	IC HA 12412
IC 102	261352	1	IC LM 324
IC 201	282167	1	IC LA 1245
IC 301	282166	1	IC UPC 1227
IC 302	274480	1	IC NJM 4560 DX
IC 501	281970	1	IC UP HD 44840 / B 08
IC 502	261874	1	IC MC 14016 BCP MOS
LD 1	282208	1	Display
LF 1	282190	2	Spule MPX
LF 2	282190	2	Spule MPX
RY 1	282176	1	Relay RZ 12
TC 1	282177	4	Trimmer TZ 03 7110 F
TC 4	282177	4	Trimmer TZ 03 7110 F
TC 201	282178	2	Trimmer TZ 03 R 200 F
TC 202	282178	2	Trimmer TZ 03 R 200 F
VR 101	282202	1	Steller 33 kΩ
VR 102	282203	1	Steller 47 kΩ
VR 201	282201	1	Steller 22 kΩ
VR 301	282200	1	Steller 10 kΩ
VR 302	282199	2	Steller 4,7 kΩ
VR 303	282199	2	Steller 4,7 kΩ
VR 401	282204	1	Steller 1 kΩ
	283042	1	Bedienungs-Anleitung
	282526	1	Verpackung kpl.

Änderungen vorbehalten! Subject to change! Sous réserve de modification!